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(54) Title: PROPYLENE COPOLYMER COMPOSITIONS HAVING A GOOD LOW-TEMPERATURE IMPACT TOUGHNESS
AND A HIGH TRANSPARENCY(57) Abstract: The present invention relates to a propylene copolymer composition comprising A) a propylene polymer containing from 0 to 10% by weight of olefins other than propylene and B) at least one propylene copolymer containing from 5 to 40% by weight of olefins other than propylene, where the propylene polymer A and the propylene copolymer B are present as separate phases and the propylene copolymer composition has a haze value of $\leq 30\%$, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition temperature of the propylene copolymer composition is $\leq -15^{\circ}\text{C}$.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/06043

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C08L23/00 C08L23/10 C08L23/14 C08L23/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 885 926 A (CHISSO CORP) 23 December 1998 (1998-12-23) claim 1 page 20 -page 21; examples 7-10; table 4 -----	1
A	WO 01 48034 A (FISCHER DAVID ;WEISS HORST (DE); BINGEL CARSTEN (DE); FRAAIJE VOLK) 5 July 2001 (2001-07-05) cited in the application examples 98-104 -----	1-15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 0885926	A 23-12-1998	JP	3024082 B2	21-03-2000
		JP	10316810 A	02-12-1998
		JP	10316727 A	02-12-1998
		CN	1200382 A	02-12-1998
		DE	69800610 D1	26-04-2001
		DE	69800610 T2	02-08-2001
		EP	0885926 A2	23-12-1998
		TW	400341 B	01-08-2000
		US	6319991 B1	20-11-2001
WO 0148034	A 05-07-2001	DE	19962905 A1	12-07-2001
		AU	2511001 A	09-07-2001
		BR	0016723 A	18-02-2003
		CA	2395552 A1	05-07-2001
		CN	1433435 T	30-07-2003
		WO	0148034 A2	05-07-2001
		EP	1250365 A2	23-10-2002
		US	2003149199 A1	07-08-2003